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ABSTRACT

In an attempt to evaluate and minimize the dropout problem 26 noncompleting, two-parent families leaving the Mountain-Plains program prematurely were selected for study on the basis of availability of entry scores on the Personal Orientation Inventory (POI) and the 16 Personality Factor Questionnaire, Form E (16PF). Scores for this group were compared to entry norms for the overall Mountain-Plains student population in an attempt to examine questions related to dropout characteristics. Dropouts were distinguished from norms by a preponderance of negative descriptions for both males and females, somewhat more so for females. Implications of these findings for the Mountain-Plains program are briefly explored. (SA)

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PSYCHOLOGICAL CHARACTERISTICS OF NON-COMPLETERS

An Affective Evaluation Report
General Report Number 1
(IR-4-IV-023)

Revised and Expanded, July, 1974
(Original Title: POI Profiles of Non-Completers:
Implications for Retention and Recruitment)

A Study By:

Rowan W. Conrad

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INTRODUCTION

Maintaining enrollment of students through an institutionally-defined, successful completion, is a traditional problem in both secondary and post-secondary education (e.g., Feldman and Newcomb, 1970) as well as "manpower" programs. Students who are not so maintained are labeled "dropouts" and studies of the "dropout" phenomenon abound. The opposite of dropout, persistence is often used as criterion for measuring the success of institutions, programs, and program elements.

The Dropout Phenomena is of interest because of institutional costs accompanying the problem (the assumption being that persisters "return" greater social and economic benefit to the society for education received) and personal costs to the person dropping out (the assumption being that persisters will experience more personal and/or social, and/or economic benefits than dropouts). An unsystematic review of work in this area leaves the impression that the validity of these assumptions may depend upon the population, and the type and level of educational institution or program to which they are applied.

Assumptions would appear to have their greatest validity as regards an institution such as Mountain-Plains where entering students are, by definition, currently experiencing the fate assumed for dropouts in general, will probably continue to experience this fate if unsuccessful, and are those in whom a large economic investment has already been made (an average of about $1,200 at program entry) and who continue to consume resources at a rate of over $1,000 per month until completion or drop out. Therefore, dropouts are seen to be a serious problem for Mountain-Plains, the indi-

viduals involved, and society in general. Studying this problem, with a view towards its minimization, is thus of considerable potential value.

Evaluation Design

Level One

The first level in evaluating the dropout problem is a requirement that all resigning students attend an interview and make a written list of their reasons for dropping out. Reasons given have ranged from, financial problems and external job offers, through dissatisfaction with the institution, to personal and family problems. Whereas students tend to report more "socially acceptable" reasons (e.g., money and institutional dissatisfaction) on their written statements, the interview and staff and peer reports indicate that most dropouts (as many as 80%) result from personal and family problems. Further, indications are that wife is often a major influence in the decision to leave Mountain-Plains prematurely. As a result of these reports and discussions, a more objective approach to assessing the dropout problem and the relative roles of husband and wife as casual factors in dropout was sought.

Level Two

Twenty-six non-completing two-parent families prematurely leaving Mountain-Plains during the fall and winter, 1973/1974, were selected for study on the basis of availability of entry scores on the Personal Orientation Inventory (POI). Sixteen Personality Factor Questionnaire, Form E (16PF) entry scores for twenty-three of the women and twenty-two of the men in this group were also available. Score comparisons on the

scales of these tests are made in an attempt to examine the following questions:

QUESTION 1: Do psychological test scores support the contention that dropout families might experience more personal/family difficulty than students in general?

QUESTION 2: Do psychological test scores support the contention that the wife is a key factor in the dropout problem?

QUESTION 3: What characteristics of dropouts are identified that might be useful in terms of recruitment and selection and/or early program treatment?

Comparisons of dropouts to entry norms for the overall Mountain-Plains student population is accomplished to provide partial answers to all of the above questions, and comparisons of score differences between sexes is accomplished to provide partial answers to the second two. The T-test for comparison to a norm group is used for dropout-norm and the T-test for independent samples to compare male and female scores.

RESULTS

Results for the two tests are presented graphically in Figures 1 and 2 and examined statistically in Tables 1 and 2. Results are also described by sex, by differential norm departure by sex, and by differences between sexes.

Men, who drop out, are indicated to be: more outgoing, less intelligent, more emotionally stable, less assertive, more tender-minded, more trusting, more imaginative, more group dependent, less relaxed, less likely to endorse positive mental health values, less self-acceptant, less acceptant of their aggressive feelings, and less aware

of the meaningful relationship between opposites than the average male student.[1]

Women. Married females who drop out are indicated as: more outgoing, more happy-go-lucky, more venturesome, less trusting, experiencing more self-conflict, less relaxed, less likely to endorse positive mental health values, less flexible in applying values, less spontaneous, having lower self-regard, having lower self-acceptance, having less synergistic awareness, and having a lower capacity for intimate contact than the average female student.

Male and Female Norm Deviations Compared

On two scales, men and women differ from their respective norm in opposite directions with men indicated to be relatively more optimistic and trusing.

Male dropouts score as less intelligent, more emotionally stable, less assertive, more sensitive/clinging/overprotected, more imaginative/impractical, more group dependent, and less acceptant of aggressive feelings than the norm whereas females do not differ from norms on these variables. Therefore, these variables, couples with trust and optimism uniquely characterize the male dropout.

Non-normative characteristics uniquely distinguishing the married female dropout both from the male dropout and the norm are greater: Liveliness/Impulsuity, venturesomeness/lack of inhibition, undisciplined self-conflict, and lower: flexibility in

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[1]Although brief scale descriptions are attached as Appendix A and Appendix B, for a full exploration of differences, the reader should explore the Table 1 and Table 2 results in concert with the respective test manual scale descriptions.

applying values, spontaneity, self-regard, and capacity for intimate contact.

Both male and female dropouts score as: more outgoing, having higher tension/frustration levels, giving lower endorsement to positive mental health values, having lower self-acceptance, and as having a lower understanding of the meaningful relationship between opposites than the respective norms for entering students.

Men vs. Women. Dropout males, as compared to their spouses, are indicated as: more reserved, more emotionally stable, more tough-minded, less suspicious, more self-assured, more relaxed, more spontaneous, and having higher self-regard.

Favorability. Of the fourteen variables distinguishing between female dropouts and female entry norms, two (outgoing and venturesome) appear to be favorable descriptions, one (less sober) perhaps a neutral description, and the remainder negative. Of the fourteen variables distinguishing between male dropouts and male entry norms, three (outgoing, emotionally stable, and trusting) would seem to be favorable descriptions, one (less practical) perhaps a neutral description, and the remainder negative descriptions.[2]

[2]The "favorability" of scale descriptions is always subject to argument. The major point being that most rators would rate most dropout deviations as unfavorable descriptions.

Figure 1

Male (—) and Married Female (---) 16PF Scores Compared to the Respective Norms by Sex for All Entering Students.

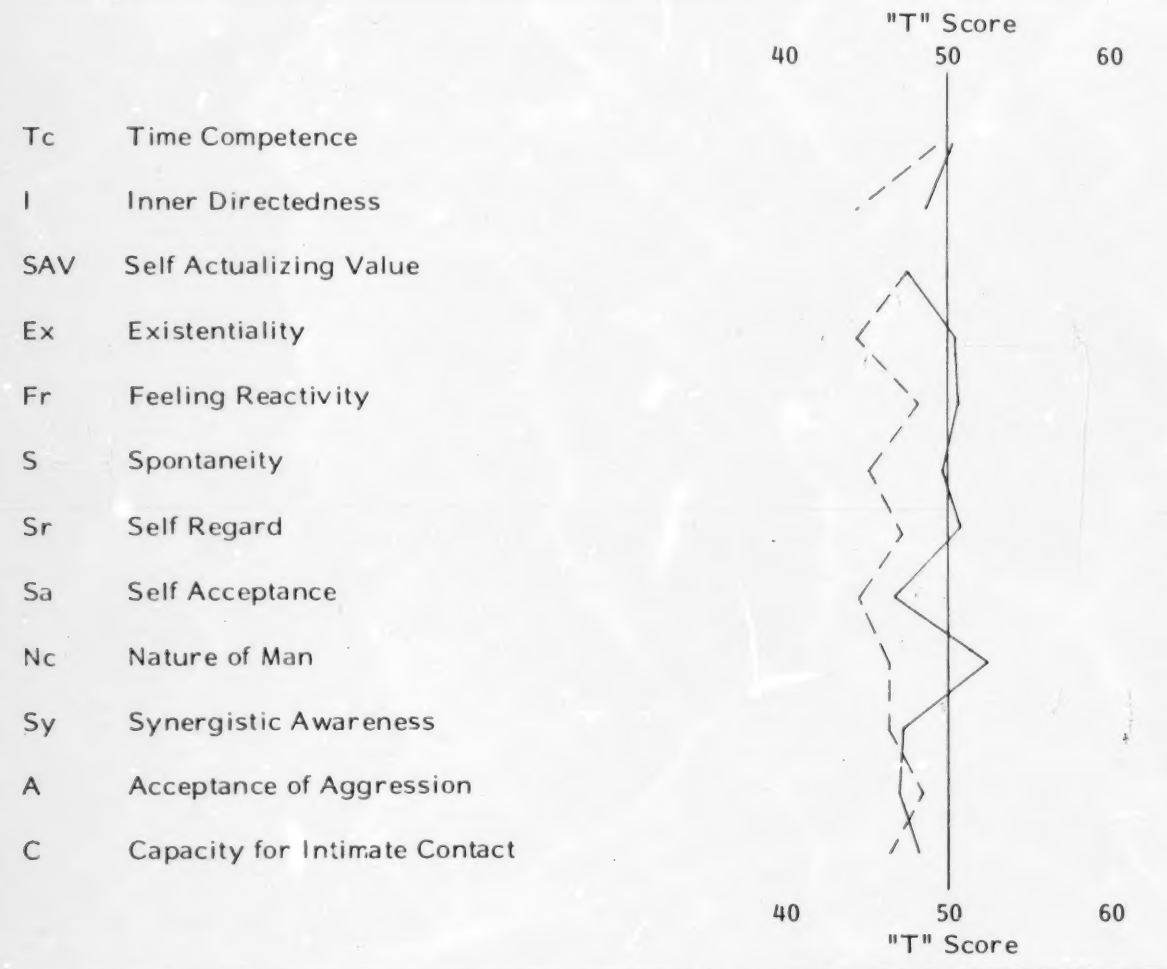

Figure 2

Male (—) and Married Female (---) POI Scores Compared to the Respective Norms by Sex for All Entering Students.

TABLE 1

16 PF Scores for Married Drop Out Students Compared to Entry Norms for All Students by Sex

16 PF SCALE	MALE n=22				t ENTRY NORM vs DROP OUT	FEMALE n=23				t ENTRY NORM vs DROP OUT	t MALE DROP OUT vs FEMALE DROP OUT
	ENTRY NORM		DROP OUT			ENTRY NORM		DROP OUT			
	M	SD	M	SD		M	SD	M	SD		
A	3.05	1.83	3.59	1.50	5.29**	4.98	1.71	5.48	1.70	3.97**	- 3.94**
B	6.58	1.34	6.09	1.34	- 5.97**	6.22	1.98	6.22	1.73	0.00	- 0.26
C	3.97	1.88	4.27	1.61	2.54**	3.10	1.68	3.17	1.70	0.56	2.23**
E	3.44	1.88	2.91	1.60	- 4.57**	2.36	1.59	2.43	1.73	0.54	0.95
F	4.27	2.07	4.55	2.28	1.19	4.09	2.25	4.87	1.91	4.91**	- 0.52
G	4.68	1.97	4.45	2.09	- 0.15	4.90	1.83	5.00	1.83	0.69	- 0.93
H	2.71	2.28	2.86	2.17	0.70	1.95	2.14	2.65	2.40	2.80**	0.31
I	2.23	1.96	2.59	1.76	2.55**	5.90	1.89	6.22	2.28	1.42	- 5.96**
L	3.78	2.00	3.18	1.84	- 3.90**	3.24	1.68	4.26	1.63	26.21**	- 2.08**
M	3.38	1.46	3.64	1.43	2.80**	3.20	1.42	3.26	1.32	0.79	0.91
N	4.04	1.48	4.14	1.36	0.08	4.08	1.44	4.09	1.62	0.09	0.11
O	4.39	1.94	4.50	1.37	1.29	5.94	1.82	5.91	1.78	0.21	- 2.97**
Q_1	4.48	1.82	4.45	1.65	- 0.24	4.63	1.88	4.61	1.53	- 0.20	- 0.32
Q_2	4.34	2.39	3.64	2.85	1.90*	4.05	2.27	3.87	1.82	- 1.25	- 0.33
Q_3	3.95	1.93	4.09	1.80	0.15	3.71	1.71	3.43	1.78	- 2.03**	1.23
Q_4	3.41	2.06	3.68	2.15	1.95*	4.58	2.19	5.22	1.95	3.88**	- 2.51**

* Denotes a Statistically Significant Difference $p \leq 0.10$

** Denotes a Statistically Significant Difference $p \leq 0.05$

NOTE: The 0.10 confidence level is chosen for the norm group comparisons as the fact that the group under study is included in the norm artificially reduces differences as regards the root comparison of interest – drop-outs vs persistors. However, the 0.05 level of confidence is chosen for male/female comparisons, and 0.10 level differences are not designated on this comparison.

TABLE 2

POI Scores for Married Drop Out Students Compared to Entry Norms for All Students by Sex

	MALE				t	FEMALE n=26				t	t MALE DROP OUT vs FEMALE DROP OUT
	ENTRY NORM		DROP OUT n=26			ENTRY NORM		DROP OUT n=26			
	M	SD	M	SD		M	SD	M	SD		
Tc	14.20	3.64	14.3	3.00	0.29	14.56	3.17	14.1	7.39	- 0.22	0.15
I	75.18	12.64	74.1	8.92	- 0.35	74.56	9.37	69.3	9.78	- 1.43	1.87
SAV	18.26	3.56	17.5	3.35	- 1.76*	17.89	3.23	17.3	2.81	- 1.94*	0.27
Ex	17.51	4.43	17.6	4.84	0.10	17.50	4.45	15.2	4.45	- 3.02**	1.88
Fr	13.76	3.01	13.9	2.58	0.55	14.10	3.05	13.5	3.50	- 1.27	0.45
S	10.68	2.79	10.6	1.90	- 0.58	10.36	2.36	9.31	2.28	- 5.25**	2.18**
Sr	11.62	5.76	11.8	2.19	0.98	10.52	2.58	9.92	2.30	- 2.96**	2.30**
Sa	13.61	3.69	12.9	2.91	- 2.18**	14.33	3.08	12.5	3.39	- 4.14**	0.53
Nc	10.71	2.36	11.2	2.26	2.50**	10.82	2.03	10.1	2.04	- 4.50**	1.81
Sy	5.97	1.56	5.50	1.75	3.98**	6.10	1.32	5.69	1.19	- 7.59**	- 0.46
A	14.60	3.49	13.7	3.22	- 2.26**	14.18	3.04	13.6	3.91	- 0.99	0.03
C	15.61	3.64	15.0	3.56	- 1.25	15.13	3.54	13.8	4.11	- 2.31	2.31**

* Denotes a Statistically Significant Difference $p \leq 0.10$

** Denotes a Statistically Significant Difference $p \leq 0.05$

NOTE: The 0.10 confidence level is chosen for the norm group comparisons as the fact that the group under study is included in the norm artificially reduces differences as regards the root comparison of interest – drop-outs vs persistors. However, the 0.05 level of confidence is chosen for male/female comparisons, and 0.10 level differences are not designated on this comparison.

DISCUSSION

The preponderance of negative descriptions for both male and female dropouts on those variables distinguishing dropouts from the overall student norms indicate a less favorable personal development in dropouts. The answer to Question 1 seems to be "yes", dropouts could logically be expected to experience more personal and family difficulties than the overall entering population.

The differentiating scales would appear to show a more negative description for the female dropout. Scales where male and female dropouts differ significantly upon direct comparison find seven of eight differences more favorable to the male; however, these same differences tend to obtain with respect to the overall Mountain-Plains population. This could be interpreted in either of two ways: 1) These are normal psychological differences between sexes usually observed on psychological tests and hold little meaning, or 2) Women, in this population in general appear to be subject to less favorable psychological descriptions than men.

The fact that sex differences are not typically found in other populations on the POI variables tends to support the latter interpretation. Although most of the 16PF score scale differences are in the same direction as for the norming sample reported in the Interm Supplement Manual for Form E, there is no sex difference in this norming group on the L (trust) scale. Thus, at least four of the less favorable descriptions of the married female dropout (less trusing, less spontaneous, lower self-regard, and lower capacity for intimate contact), as compared to spouses, seem to be independent of the sex variable per se'.

A part from value judgments as regards favorability of differences, the scales differentiating between dropouts and the entering population each provide a trait to explore in selection of families and/or student families whose intake profiles show subnormal scores on differentiating scales could be given immediate special attention, particularly in counseling.

FORMATIVE IMPLICATIONS

State Coordinators could become familiar with the trait differences which distinguish dropouts from the overall population. Interview techniques to explore problem areas could be developed.[3] Results indicate that the wife in two-parent families needs to be given equal, or perhaps even special attention in selection.

Counselors could begin work immediately with families whose entering psychological profiles are subnormal for the Mountain-Plains population. Counseling could also notify all core curriculum areas whenever a family is identified as a potential dropout, so that these areas may be involved in early impact efforts. Procedures to insure that important test information does not hit a "dead file" period could be instituted.

Whenever a spouse with children seems to be a key, the Early Childhood Home Visitors could be notified, and the family included on the visiting list as a top priority.

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[3]The suggestion that the instrument itself be used in selection will doubiless be made. There are numerous arguments against this, but at present the fact that it probably is illegal should suffice.

Such a concerted approach to improved selection and early program attention to difficulties could have the effect of decreasing the non-completion rate thus reducing program costs.[4]

[4]Using rough estimates supplied from the Controller's Division for dropout rate, average time to drop out, and pre center cost, a baseline cost per family estimate of $12,000, an average nine-month stay per family, and an average population of 200 families, dropouts cost Mountain-Plains $260,000 each year. Halving the dropout rate would save $130,000 and reduce cost per family by over $500.

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APPENDIX A

Scale Description for the 16PF*

Low Score Description		High Score Description
RESERVED, Detached, Critical, Aloof (Sizothymia)	A	OUTGOING, Warmhearted, Easy-Going, Participating (Affectothymia, formerly cyclothymia)
LESS INTELLIGENT, Concrete-Thinking (Lower scholastic mental capacity)	B	MORE INTELLIGENT, Abstract-Thinking, Bright (Higher scholastic mental capacity)
AFFECTED BY FEELINGS, Emotionally Less Stable, Easily Upset (Lower ego strength)	C	EMOTIONALLY STABLE, Faces Reality, Calm, Mature (Higher ego strength)
HUMBLE, Mild, Accommodating, Conforming (Submissiveness)	E	ASSERTIVE, Aggressive, Stubborn, Competitive (Dominance)
SOBER, Prudent, Serious, Taciturn (Desurgency)	F	HAPPY-GO-LUCKY, Impulsively Lively, Gay, Enthusiastic (Surgency)
EXPEDIENT, Disregards Rules, Feels Few Obligations (Weaker superego strength)	G	CONSCIENTIOUS, Persevering, Staid, Moralistic (Stronger superego strength)
SHY, Restrained, Timid, Threat-Sensitive (Threctia)	H	VENTURESOME, Socially Bold, Uninhibited, Spontaneous (Parmia)
TOUGH-MINDED, Self-Reliant, Realistic, No-Nonsense (Harria)	I	TENDER-MINDED, Clinging, Over-Protected, Sensitive (Premsia)
TRUSTING, Adaptable, Free of Jealousy, Easy to Get Along With (Alaxia)	L	SUSPICIOUS, Self-Opinionated, Hard to Fool (Protension)
PRACTICAL, Careful, Conventional, Regulated by External Realities, Proper (Praxemia)	M	IMAGINATIVE, Wrapped up in Inner Urgencies, Careless of Practical Matters, Bohemian (Autia)
FORTHRIGHT, Natural, Artless, Unpretentious (Artlessness)	N	SHREWD, Calculating, Worldly, Penetrating (Shrewdness)
SELF-ASSURED, Confident, Serene (Untroubled adequacy)	O	APPREHENSIVE, Self-Reproaching, Worrying, Troubled (Guilt proneness)
CONSERVATIVE, Respecting Established Ideas, Tolerant of Traditional Difficulties (Conservatism)	Q_1	EXPERIMENTING, Liberal, Analytical, Free-Thinking (Radicalism)
GROUP-DEPENDENT, A "Joiner" and Sound Follower (Group adherence)	Q_2	SELF-SUFFICIENT, Prefers own Decisions, Resourceful (Self-sufficiency)
UNDISCIPLINED SELF-CONFLICT, Follows own urges, Careless of Protocol (Low integration)	Q_3	CONTROLLED, Socially Precise, Following Self-Image (High self-concept control)
RELAXED, Tranquil, Unfrustrated (Low ergic tension)	Q_4	TENSE, Frustrated, Driven, Overwrought (High ergic tension)

*Descriptions adapted from 16PF Profile Form. Institute for Personality and Ability Testing, Champaign, IL

APPENDIX B

Scale Description for the POI*

High Score Description		Low Score Description
TIME COMPETENT, Lives in the present.	T_c	TIME INCOMPETENT, Lives in the past or future.
INNER-DIRECTED, Independent, Self-Supportive.	I	OTHER DIRECTED, Dependent, seeks support of others' views.
SELF-ACTUALIZING VALUE, Holds values of self-actualizing people.	SAV	Rejects values of self-actualizing people.
EXISTENTIALITY, Flexible in application of values.	Ex	Rigid in application of values.
FEELING REACTIVITY, Sensitive to own needs and feelings.	Fr	Insensitive to own needs and feelings.
SPONTANEITY, Freely expresses feelings behaviorally.	S	Fearful of expressing feelings behaviorally.
SELF-REGARD, Has high self-worth.	Sr	Has low self-worth.
SELF-ACCEPTANCE, Accepting of self in spite of weaknesses.	Sa	Unable to accept self with weaknesses.
NATURE OF MAN, CONSTRUCTIVE, Sees man as essentially good.	Nc	Sees man as essentially evil.
SYNERGY, Sees opposites of life as meaningfully related.	Sy	Sees opposites of life as antagonistic.
ACCEPTANCE OF AGGRESSION, Accepts feelings of anger or aggression.	A	Denies feelings of anger or aggression.
CAPACITY FOR INTIMATE CONTACT, Has warm interpersonal relationships.	C	Has difficulty with warm interpersonal relations.

*Descriptions adapted from POI Profile Form. Educational & Industrial Testing Service, San Diego, CA